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EXAMINER

LINDINGER, MICHAEL L

ART UNIT

PAPER NUMBER

2841

DATE MAILED: 12/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/928,884

Applicant(s)

LAWLYES ET AL.

Examiner

Michael L. Lindinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 8-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Amendment*

1. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 8 and 13-15 are rejected under 35 U.S.C. 102(b) as being unpatentable by Natsume U.S. Patent No. 5,764,487. Natsume teaches an engine controller comprising a main assembly board 28, a main assembly housing 24, 26, and a pre-assembled partitioned circuit assembly having a partitioned circuit element 16 mounted within a partitioned circuit housing 22 and a plurality of connectors 32, said plurality of connectors placing said partitioned circuit element in communication with said main assembly board when said partitioned circuit assembly is inserted into said main assembly housing, wherein

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said main assembly housing includes at least one main assembly port 20, said at least one said assembly port allowing said partitioned circuit assembly to be inserted into said main assembly board through main assembly housing, wherein the engine controller further comprises at least one communication port 36 (Col. 3, lines 20+; Col. 4, lines 1+; FIG. 1-2).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 9-12 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natsume U.S. Patent No. 5,764,487 in view of Denzene U.S. Patent No. 6,219,258 B1. Natsume teaches an partitioned circuit assembly for integration and removal from an engine controller comprising a main assembly board 28, a main assembly housing 24, 26, and a pre-assembled partitioned circuit assembly having a partitioned circuit element 16 mounted within a partitioned circuit housing 22 and a plurality of connectors 32, said plurality of connectors placing said partitioned circuit element in communication with said main assembly board when said partitioned circuit assembly is inserted into said main assembly housing (Col. 3, lines 20+; Col. 4, lines 1+; FIG. 1-2). Natsume

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does not teach a partitioned circuit assembly further comprising a heat sink element, a passivation material, or a seal element. Denzene teaches pre-assembled circuit assembly comprising a heat sink element (not explicitly numbered, referred to as fins on the inner/outer surfaces Col. 5, lines 25-32), a passivation material 90 positioned within said partitioned circuit housing (Col. 2, lines 27+; Col. 6, lines 46+; Col. 7, lines 1+), a seal element 110 such that said partitioned circuit assembly becomes sealed to said main assembly housing after said partitioned circuit assembly is inserted into said main assembly board (Col. 8, lines 23+). Denzene does not teach a pre-assembled partition circuit assembly further including a heat sink attached using thermally conductive material. Electronic devices or components generate heat, which creates interference within the electronic assembly and decreasing the accuracy of the signals and results. It would be obvious to a person skilled in the art to adapt the pre-assembled circuit assembly of the Natsume reference to include a heat sink element, passivation material, and a seal element in order to protect the inner components of the assembly from EMI interference and environmental pollution. It is known to provide a heat sink, heat dissipation device, or cold plate in conjunction with a circuit assembly in order to minimize the dissipation of heat and the subsequent interference problems that accompany the excess heat produced. By providing a heat sink and other sealant elements, the Applicant is merely attempting to remedy a common problem within the electronic industry, and thus not providing an improvement on an existing product, therefore the inclusion of the heat sink does not constitute patentability.

***Prior Art***

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ito U.S. Patent No. 5,403,193 discloses a small junction box for connecting a wire harness comprising a power receptacle and socket.
- Matsuoka U.S. Patent No. 5,759,050 discloses an electrical connection between an electrical connection box and electronic connector unit.
- Boyd U.S. Patent No. 6,350,949 B1 discloses a sealed power module.
- Koshiba U.S. Patent No. 6,437,986 B1 discloses a fuse relay junction block for use in automobiles.
- Rostoker U.S. Patent No. 5,311,060 discloses a semiconductor device comprising a heat sink, a semiconductor chip, and a passivation layer.
- Pressler U.S. Patent No. 5,550,713 discloses an partitioned EMI shielding assembly for a printed circuit board comprising a printed circuit board, a gasket, and a sealing gasket and fastener.
- Achiriloaie U.S. Patent No. 6,094,350 discloses a partitioned module comprising a printed circuit board, a gasket, and a heat sink.
- Weber U.S. Patent No. 6,317,332 discloses an electronic module comprising a housing piece, multiple external connectors, and a circuit board.

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**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael L. Lindinger whose telephone number is (703) 305-0618. The examiner can normally be reached on Monday-Thursday (7:30-6).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (703) 308-3121. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7318 for regular communications and (703) 746-7318 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Michael L. Lindinger  
Patent Examiner  
Art Unit 2841

MLL  
November 26, 2002



**DAVID MARTIN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2800**